

REMARKS

This paper is presented in response to the Office Action. By this paper, claims 32 and 53 are amended. Claims 32-53 remain pending.

Reconsideration of the application is respectfully requested in view of the aforementioned amendments and the following remarks. For the Examiner's convenience and reference, Applicant's remarks are presented in the order in which the corresponding issues were raised in the Office Action.

I. General Considerations

Applicant notes that the remarks and amendments presented herein have been made merely to clarify the claimed embodiments from elements purported by the Examiner to be taught by the cited references. Such remarks, or a lack of remarks, and amendments are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicant: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicant reserves the right to challenge the purported teaching and prior art status of the cited references at any appropriate time.

In addition, the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration, by the Applicant, of additional or alternative distinctions between the claims of the present application and any references cited by the Examiner, and/or the merits of additional or alternative arguments.

II. IDS

Applicant thanks the Examiner for his review of the Information Disclosure Statements and for his determination that all of the IDSs are believed to have been considered.

III. Rejection of Claims 32-37 and 46-52 under 35 U.S.C. § 103

Applicant respectfully notes at the outset that in order to establish a *prima facie* case of obviousness, it is the burden of the Examiner to demonstrate that three criteria are met: first, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; second, there must be a

reasonable expectation of success; and third, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP* § 2143.

The Examiner has rejected claims 32-37 and 46-52 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,812,581 to Cox (“*Cox*”) in view of U.S. Patent No. 5,493,577 to Choquette et al. (“*Choquette*”) and further in view of U.S. Patent No. 5,633,527 to Lear (“*Lear*”). Applicant respectfully traverses the rejections.

With regard to claim 32, the Examiner has conceded that *Cox* fails to teach the claim 32 limitation “the second DBR layer having a doping level that is higher than a doping level of the first DBR mirror layer.” The Examiner then states that “*Cox*’s insulating layer is ion implanted,” and cites *Choquette* for teaching “that such ion implanted layers may be advantageously replaced by an oxidized insulating layer,” and that “it would have been obvious ... to use an oxidized layer as in *Choquette*, rather than the ion implanted layer of *Cox* because this improves device characteristics such as threshold current density.” Based on this purported teaching of *Choquette*, the Examiner goes on to cite *Lear* for teaching that “oxidation extent is dependent on dopant level, and ... a higher doping level yields more oxidation.” Finally, the Examiner concludes that “[s]ince the second DBR layer is where the oxidation occurs, it would have been obvious ... to make that layer higher in dopant level as a means for controlling the oxidation extent of such a layer, as taught by *Lear*.”

With respect to the purported motivation for the allegedly obvious combination of *Cox*, *Choquette* and *Lear*, Applicant notes that the Examiner has asserted that it would have been obvious to modify the purported teachings of *Cox* with the purported teachings of *Choquette* because the allegedly obvious resulting combination “... improves device characteristics such as threshold current density.” *Emphasis added*. Applicant however that “improves device characteristics” is a relative term whose definition is known only to the Examiner. For example, it is not at all apparent what reference point(s), if any, the Examiner is using as a basis to assert that threshold current density improvements would necessarily be achieved as a result of the purportedly obvious combination. For at least this reason, Applicant submits that the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combination.

Additionally, the Examiner has failed to establish that the *Cox* device suffers from such shortcomings as could, or would, be remedied by the *Choquette* disclosure. In the absence of any evidence that the *Cox* device is somehow deficient in terms of threshold current density, Applicant submits that the Examiner has failed to establish the existence of the requisite motivation to make the purportedly obvious combination.

Finally, Applicant notes that it appears that the Examiner is relying on personal knowledge as a basis for rejecting claims 32-37 and 46-52. Particularly, in referring to *Choquette*, the Examiner has simply stated that “[a]s the layer is oxidized, it is necessarily insulating,” (emphasis added) and the Examiner has not identified any references or other materials as disclosing or suggesting that an oxidized layer “is necessarily insulating.” In view of the foregoing, and pursuant to 37 C.F.R. 1.104(d)(2), Applicant hereby respectfully requests an Examiner affidavit that: (i) specifically identifies any and all reference(s), other than those that have been specifically cited by the Examiner, upon which the rejection of claims 32-37 and 46-52 is based; and (ii) provides complete details concerning the reasoning and analysis of the Examiner concerning those references as those references are purported to apply to the rejection of claims 32-37 and 46-52.

In view of the foregoing discussion, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to claims 32-37 and 46-52, at least because the Examiner has failed to establish the existence of a suggestion or motivation to make the purportedly obvious combination. Accordingly, Applicant respectfully submits that the rejection of claims 32-37 and 46-52 should be withdrawn.

IV. Allowable Subject Matter

The Examiner has indicated that claim 53 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In light of the discussion herein, Applicant respectfully declines to amend claim 53 at this time.

Applicant acknowledges with thanks the indication of the Examiner that claims 38-45 are allowed, and Applicant also wishes to thank the Examiner for the careful review of those claims.

Applicant submits the following comments concerning the Examiner’s statements of reasons for the indication of allowable subject matter in the Office Action. In general, Applicant agrees with the Examiner that the inventions to which claims 38-45 and 53 are respectively directed are patentable over the cited references, but respectfully disagrees with the Examiner’s statement of reasons for allowance as set forth in the Office Action.

Particularly, Applicant submits that it is improper to characterize a single limitation, or subset of limitations, as constituting the basis for allowance of a claim. Rather, the patentability of a claim is properly determined with reference to the claim as a whole. Accordingly, Applicant does not concede that the reasons for allowable subject matter given by the Examiner are the only reasons that make, or would make, the claim allowable and Applicant does not make any admission or concession concerning

the Examiner's statements in the Office Action concerning the allowability of claims 38-45 and 53 in view of the cited references.

VI. Incorrect Attorney Docket No.

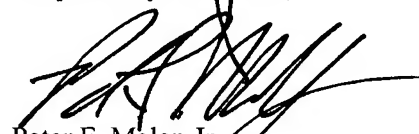
Applicant respectfully notes that the Office Action incorrectly references Attorney Docket No. "H26341-D1 US." Pursuant to the Change of Attorney Docket Number filed in this case on July 1, 2004, the correct docket number for this case is 15436.435.1.1. Applicant thus respectfully requests that all applicable USPTO records be updated accordingly, and Applicant further requests that all further communications from the USPTO reference docket number 15436.435.1.1.

CONCLUSION

In view of the remarks submitted herein, Applicant respectfully submits that each of the pending claims 32-53 is in condition for allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that could be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 30th day of May, 2006.

Respectfully submitted,



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